

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### Listing of the Claims

1. **(Currently amended)** An expression vector comprising a nucleic acid sequence which encodes a ~~human~~~~mammalian~~ Na<sub>v</sub>1.9 sodium channel protein or a fragment thereof, wherein the human Na<sub>v</sub>1.9 sodium channel protein or fragment thereof~~expression vector~~ produces a sodium current ~~when~~ after the expression vector is transfected in a cell.
- 2-3. **(Canceled)**
4. **(Currently amended)** The expression vector of claim 12, wherein the human Na<sub>v</sub>1.9 comprises an amino acid sequence selected from the group consisting of:
  - (a) amino acid residues 1 to 1791 of SEQ ID NO: 4,
  - (b) an amino acid sequence comprising a fragment of amino acid residues 1 to 1791 of SEQ ID NO: 4, and
  - (c) amino acid residues 1 to 1791 of SEQ ID NO: 4 comprising at least one conservative substitution.
5. **(Canceled)**
6. **(Original)** The expression vector of claim 1 that is an expression plasmid.
7. **(Original)** The expression plasmid of claim 6 that is a low copy number expression plasmid.
8. **(Original)** The expression plasmid of claim 7 further comprising a promoter sequence operably linked to the Na<sub>v</sub>1.9 sequence.
9. **(Original)** The expression plasmid of claim 8, wherein the promoter sequence is a CMV promoter.
10. **(Original)** The expression plasmid of claim 8 further comprising a

selectable marker under the control of a second promoter sequence.

11. **(Original)** The expression plasmid of claim 10, wherein the selectable marker is a neomycin resistance gene.
- 12.-24. **(Canceled)**
25. **(Currently amended)** A method of making a cell or cell line that produces a human Na<sub>v</sub>1.9 sodium channel-dependent sodium current comprising:
  - (a) providing a cell which has been transfected with an expression vector which comprises a nucleic acid sequence which encodes the human Na<sub>v</sub>1.9 sodium channel protein, and
  - (b) culturing said cell under conditions which allow expression of the Na<sub>v</sub>1.9 sodium channel protein to produce a sodium current in the transfected cell.
26. **(Canceled)**
27. **(Currently amended)** The method of claim ~~25~~26, wherein the expression vector is an expression plasmid.
28. **(Canceled)**
29. **(Currently amended)** A method of screening for an agent that modulates sodium current in a cell comprising:
  - (a) providing a cell which has been transfected with an expression vector which comprises a nucleic acid sequence which encodes the human Na<sub>v</sub>1.9 sodium channel protein;
  - (b) culturing said cell under conditions which allow expression of the Na<sub>v</sub>1.9 sodium channel protein to produce a sodium current in the transfected cell;
  - (c) exposing the cell or cell line produced by steps (a) and (b) ~~the method of claim 25~~ to the agent; and
  - (d) measuring sodium current following exposure to the agent, wherein an

alteration in the level of sodium current is indicative of an agent capable modulating sodium current in a cell.

30. **(Currently amended)** A recombinant cell comprising ~~an~~the expression vector ~~of claim 1~~comprising a nucleic acid sequence which encodes a human Na<sub>v</sub>1.9 sodium channel protein or a fragment thereof, wherein the human Na<sub>v</sub>1.9 sodium channel protein or fragment thereof produces a sodium current after the expression vector is transfected in a cell.
31. **(Original)** The expression vector of claim 1, wherein the vector is a viral vector.
32. **(Original)** The viral vector of claim 31, wherein the viral vector is selected from the group consisting of adenovirus, adeno-associated virus and baculovirus.
33. **(Currently amended)** A recombinant cell comprising ~~a~~the viral expression vector comprising a nucleic acid sequence which encodes a human Na<sub>v</sub>1.9 sodium channel protein or a fragment thereof, wherein the human Na<sub>v</sub>1.9 sodium channel protein or fragment thereof produces a sodium current after the expression vector is transfected in a cell~~of claim 31.~~